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EXAMINER

SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 07/13/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,912

Applicant(s)

LIN ET AL.

Examiner

Kristie Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claims 1-20 are pending.

Abstract

1. The abstract of the disclosure is objected to because its length exceeds 1 paragraph and 150 words. Correction is required. See MPEP § 608.01(b).

Drawings

2. The drawings are objected to because figures must be numbered separately, i.e. "Fig. 7A," "Fig. 7B," as opposed to "Fig. 7 (CONT-1)", "Fig. 7 (CONT2)," etc. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any

portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Consequently, applicant is required to amend the Brief Description of the Drawings and Detailed Description of the Invention in applicant's disclosure accordingly to reflect the proper figure designations, which are in formal drawings when drawings are submitted.

Claim Objections

3. Claims 1, 7, 10 and 14 are objected to because of the following informalities:
 - a. Per claim 1, "basestation" should be "base station".
 - b. Per claim 7, use of "and" in series should be the alternative "or".
 - c. Per claim 10, "Wireless EP" should be "Wireless IP".
 - d. Per claim 14, claim dependence should refer to claim "13" as opposed to "12".

Appropriate correction is required and will be assumed for further prosecution of this application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements within the steps, such omission

amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

- a. an originating entity responsible for placing a copy of said Message Transport Protocol-encoded data request in said wireless communication device;
- b. a specified entity responsible for retrieving said copy of said Message Transport Protocol-encoded data request from said wireless communication device in response to said negative receipt confirmation; and
- c. a specified entity responsible for transmitting said retrieved copy of said Message Transport Protocol-encoded data request and said Wireless IP to said intermediary computer system.

Furthermore, the use of the term “copy” in the claim language implies the existence of an original, which has not been disclosed or supported by the pending claim and lacks relevance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Verkler et al (U.S. 5,850,517).

a. Per claim 1, Verkler et al teaches a system for providing two-way communication of content between a wireless mobile communication device and a remote computer network, comprising:

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- a wireless two-way messaging network further comprising (col.3 lines 3-13; wireless network and communication);
- said wireless communication device (col.3 lines 31-37; mobile devices function as mobile clients);
- a base station in communication with said wireless communication device (a base station is an obvious fundamental component critical to the functionality of wireless mobile communication devices);
- a gateway server in communication with said base station (col.5 lines 19-30; message gateway performs functions of gateway server);
- a network and layer framework for translating said communicated content between said wireless communication device and said base station (a network and layer framework are inherent primary traits characteristic of a communication system/network, furthermore this feature is supported by the presence of an agent interfaced between the mobile client and the network; Fig.1 and col.3 lines 40-67); and
- an intermediary computer system in communication with said wireless two-way messaging network and said remote computer network (col.4 lines 27-38; server acts as intermediary computer system communicating with online servers and other networks).

b. Per claim 2, Verkler et al teaches the system of claim 1, wherein said network and layer framework comprises:

- a system layer (obvious and inherent in operable computer systems, furthermore a client computer system is disclosed within client application program and message manager; col.5 lines 6-13);
- an operating system framework layer (obvious and inherent in computer systems, furthermore client applications residing under the operating system layer is disclosed; col.5, lines 13-18);
- a user interface (col.3 lines 20-24; client interface); and
- a Message Transport Protocol stack (col.6 lines 22-25 and col.7 lines 3-24; supports and allows for various transport protocols which is comprises Message Transport Protocol).

c. Per claim 3, Verkler et al teaches the system of claim 2, wherein said user interface comprises a computer network browser (col.3 lines 20-25; client interface allows for message transactions to be dispatched to the network which could therefore incorporate the use of a network browser).

d. Per claim 4, Verkler et al teaches the system of claim 2, wherein said network and layer framework interface further comprises a data encryption module (col.7 lines 59-63; message gateway may apply encryption for data security).

e. Per claim 5, Verkler et al teaches the system of claim 1, wherein said intermediary computer system further comprises:

- a first electronic queue of data communicated from said wireless two-way messaging network to said intermediary computer system (col.3 lines 35-39; client generates first electronic queue in the form of a request from the mobile device which is sent over the wireless network to the server via an agent);
- a plurality of data modules in communication with said first electronic queue (col.5 lines 31-39; first electronic queue message/request takes the form of structured data which can comprise a plurality of data formats and/or modules recognizable to the server);
- an event handler in communication with said plurality of data modules (col.8 lines 27-37; the message gateway generates events to be handled by the server);
- an application dispatcher in communication with said plurality of data modules and said event handler (col.5 lines 40-49 and col.6 lines 44-48; agent acts as an application dispatcher by forwarding client applications to the message gateway);
- a second electronic queue of data communicated from said intermediary computer system to said wireless two-way messaging network (col.4 lines 1-11; server communicates data to the wireless network and mobile device via an agent); and
- a content fetcher in communication with said application dispatcher and said remote computer network (col.4 lines 27-38; server retrieves requested information for remote servers or networks).

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f. Per claim 6, Verkler et al teaches the system of claim 5, wherein said second queue further comprises means for Message Transport Protocol encoding (col.7 lines 3-24; allows for different types of transport protocols encoding which comprises the Message Transport Protocol encoding).

g. Per claim 7, Verkler et al teaches the system of claim 5, wherein said plurality of data modules comprises at least one of: a message validator; a session module; a wireless IP/IP mapper database; a data transformer; an encryption module; and [or] a cache manager (col.7 lines 50-63; message gateway capable of performing encryption and message authentication).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 8-10, 12, 13, 15, 16, 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Boyle et al (U.S. 6,665,711).

a. Per claim 8, Boyle et al teaches a method for providing two-way communication of content between a wireless mobile communication device and a remote computer network via an intermediary computer system, comprising the steps of:

- originating a request for data at said wireless mobile communication device and transmitting said data request through a network and layer framework to a two-way wireless messaging network (col.2 lines 53-58; wireless mobile device originates a request and sends it to the wireless network of the link station through the link infrastructure);

- transmitting said request for data from said two-way wireless messaging network via a first electronic queue to said intermediary computer system in communication with said remote computer network (col.2 lines 53-58; the request is forwarded from the link infrastructure to the server);
- retrieving the requested data from said remote computer network (col.2 lines 55-58, col.9 lines 27-31, and col.6 lines 62-67; server retrieves requested data from web servers of remote computer networks);
- placing said retrieved data in a second queue (col.2 lines 55-58; server holds or stores the retrieved data for transmittal to wireless mobile device—a queue can be implied);
- transmitting said retrieved data from said second queue to said wireless communication device via said two-way wireless messaging network (col.2 lines 55-62; server forwards retrieved data to the mobile device via the link infrastructure and wireless network); and
- displaying said retrieved data at said wireless communication device (col.6 lines 47-49 and col.9 lines 31-37; mobile device has a display screen for displaying data, nonetheless it is intuitive that once the mobile device has received the retrieved data that it will consequently be displayed on the device).

b. Per claim 9, Boyle et al teaches the method of claim 8, wherein said request for data is a Uniform Resource Locator (col.10 lines 4-19; user requests and subscriptions can take the form of URLs).

c. Per claim 10, Boyle et al teaches the method of claim 8, wherein said wireless communication device includes a stored Wireless IP (col.7 lines 39-43 and col.8 lines 36-44; a device ID is assigned to each mobile device which serves the function of a Wireless IP), and further wherein the step of transmitting said data request through a network and layer framework to a two-way wireless messaging network comprises the steps of:

- encoding said data request into Message Transport Protocol (col.12 lines 44-67; data requests can be encoded into the determined/specific transport protocol comprising the Message Transport Protocol through use of PUSH PDU);

- sending said Message Transport Protocol-encoded data request to one of a short messaging system stack and an email stack (Fig.4, col.9 lines 38-51, col.12 lines 65-67, and col.10 lines 20-42; transport encoded data can be processed with the short message service and through the email system); and
- transmitting said Message Transport Protocol-encoded data request and said Wireless IP to said intermediary computer system (col.8 lines 47-49 and col.9 lines 1-8; device ID is held in the corresponding user account database maintained on the server).

d. Per claim 12, Boyle et al teaches the method of claim 8, wherein the step of retrieving the requested data from said remote computer network further comprises the steps of:

- retrieving said request for data in said first electronic queue (Abstract and col.9 lines 27-31; servers are used to retrieve data to fulfill requests);
- validating said retrieved request for data for Message Transport Protocol coding and transmission completeness (Fig.8A-8D; protocol encoding of data receipt acknowledgement);
- analyzing said retrieved request for data to identify type of data requested (Fig.8B; analyzes and determines data type i.e. binary or textual);
- locating a data module suitable for retrieval of said requested data (col.7 lines 5-17; obvious implied server characteristic—server uses specific data modules to perform designated function including retrieval); and
- passing said data module to a content fetcher (col.7 lines 19-33; obvious implied server characteristic exhibited by fetching/retrieval functions).

e. Per claim 13, Boyle et al teaches the method of claim 12, further including the steps of:

- transforming said retrieved data to an intermediary markup language (col.5 lines 17-25; HTML serves as an intermediary markup language); and
- transforming said retrieved data to a target markup language (col.5 lines 64-col.6 lines 1-25 and col.7 lines 21-27; HDML serves as a target markup language).

f. Per claim 15, Boyle et al teaches the method of claim 8, wherein said second electronic queue divides said retrieved data into a plurality of data packets (Fig. 8A-8C; retrieved data may be divided into fragments depending on the maximum message system limit).

g. Per claim 16, Boyle et al teaches the method of claim 15, further including the step of Message Transport Protocol-encoding each of said plurality of data packets (Fig. 8C and col. 3 lines 21-33; fragments are PUSH PDU-encoded).

h. Per claim 20, Boyle et al teaches the method of claim 8, further including the steps of:

- encrypting one of said data request and said retrieved data prior to transmission (col. 16 lines 53-63; link station can provide encryption of messages between it and mobile devices); and
- decrypting said one of said data request and said retrieved data subsequent to transmission (by virtue of encryption process, intuitively, decryption is an obvious implication in order to provide usability of retrieved data).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle et al in view of Slaughter et al (U.S. 6,643,650).

a. Boyle et al teaches transforming said retrieved data to an intermediary markup language and transforming said retrieved data to a target markup language. However, Boyle et al fails to teach that the specific intermediary markup language is Extensible Markup Language (XML). Nevertheless, Slaughter et al teaches the use XML for expressing retrieved data (Abstract).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to include the use of XML as a means for data representation for the purpose of extending the capability of the system to support additional standard text formatting languages. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

12. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle et al in view of Meyer (U.S. 6,700,902).

a. Per claim 17, Boyle et al teaches method of claim 15, further including the step of Message Transport Protocol-encoding each of said plurality of data packets. However, Boyle et al fails to teach wherein each of said plurality of data packets has a maximum length of 448 characters. Nevertheless, Meyer teaches a plurality of data packets that are dynamically sized such that their size is substantially close to and not greater than the maximum data packet size capable of being transferred, wherein the operational maximum length is determined by increasing or decreasing the stored data packet size until a successful transfer is determined (col.5 lines 20-col.6 lines 1-21).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to provide for an increase of the maximum length of transferable

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data packets for the purpose of improving the wireless data packet transmission efficiency. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

b. Per claim 18, Boyle et al teaches the method of claim 8 as stated above. However, Boyle et al fails to teach the method of claim 17, wherein said step of transmitting said retrieved data from said second electronic queue to said wireless communication device via said two-way wireless messaging network is conducted using one of Short Messaging Service protocol, Simple Mail Transfer Protocol, and Simple Network Paging Protocol. Nevertheless, Meyer teaches the use of a variety of communication protocols for transmitting retrieved data, which comprises but is not limited to SMS, SMTP, and SNPP (col.7 lines 48-65 and col.9 lines 4-45).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to provide for Short Messaging Service protocol, Simple Mail Transfer Protocol, and Simple Network Paging Protocol for the purpose of communicating data in a two-way wireless network. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

c. Per claim 19, Meyer teaches the method of claim 17 as stated above. However, Meyer fails to teach the method of claim 17, further including the step of retrieving a Wireless IP and session for said retrieved data. Nevertheless, Boyle et al teaches on the method of claim 8 from above and on the step of retrieving a Wireless IP and session for the retrieved data (col.2 lines 43-62 and col.7 lines 18-55).

It would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to retrieve a Wireless IP and session for the retrieved data for the

purpose of identifying the mobile device and its session for correlation with its corresponding requested/retrieved data. One skilled in the art would have been motivated to generate the claimed invention with a reasonable expectation of success.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. King et al (U.S. 6,721,288) discloses improved techniques for reducing delays faced by users of mobile devices.

b. Kloba et al (U.S. 6,553,412) discloses a system, method, and computer program product for web content aggregation and development, and web content delivery to clients.

c. Hussain (U.S. 6,243,367) discloses systems and methods for providing a client-server architecture for CDMA base stations.

d. Boyle (U.S. 6,119,167) discloses pushing and pulling data in networks.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 703-605-4244. The examiner can normally be reached on Monday-Friday 8:00-5:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703-305-4003. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


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